

REMARKS

Claims 1-16 are pending. Claims 1-10 have been allowed, Claims 11, 13, 14 and 16 have been rejected, and Claims 12 and 15 have been objected to, but stated to be allowable if rewritten in independent form.

Claim 11 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Peterson et al. Applicant has amended Claim 11 to specify that the first, second and third “resistive material(s)” “includ[e] a resistor.” In view of this amendment, applicant respectfully submits that Claim 11 is not anticipated by Peterson et al. Reconsideration and allowance of the same is requested.

One embodiment of a circuit that implements the invention recited in amended Claim 11 is the zero-crossing detector 604 shown in Fig. 6. As shown in Fig. 6, the zero-crossing detector 604 includes three resistors connected in series. One benefit of this configuration is that it enables zero-crossing detection of a signal with substantial noise immunity.

The examiner has cited the zero-cross detector circuit 40 in Fig. 3 of Peterson et al. That circuit, however, lacks two of the resistive elements that are required by the claim. It is believed that this marked difference results in the zero-cross detector circuit 40 not having the same degree of noise immunity as the zero-crossing detector 604 shown in Fig. 6 of the subject application.

Notwithstanding, the examiner has taken the position that the connecting wires that are shown in Peterson et al. are, themselves, “resistive material.” Thus, the examiner has rejected this claim as being anticipated by Peterson et al.

Applicant never intended to embrace conductive wires within the meaning of the language “resistive material” as used in this claim. To make this crystal clear, applicant has amended Claim 11 to specify that the “resistive material” includes a “resistor.” As is well known, a “resistor” is an electronic device specifically designed to provide a desired quantity of resistance above and beyond that provided by a conductor. A skilled artisan

would not interpret a conductive lead as a resistor. Thus, applicant respectfully submits that the rejection of Claim 11 has now been overcome.

The examiner has rejected Claims 13, 14 and 16 under 35 U.S.C. § 102(b) as being anticipated by Sylvian. Applicant has amended Claim 13 to specify that the phase shift circuit is "configured to provide a phase shift in an amount that does not materially vary as a result of substantial variances in the frequency of the oscillating signal."¹ There is no claim in Sylvian that the phase shift network 34 provides a phase shift that is frequency-independent. To the contrary, the example of this phase shift network 34 that is shown in Fig. 4 of Sylvian utilizes an RC network which provides a phase shift that would be a function of frequency. Thus, applicant has now overcome the rejection of Claims 13, 14 and 16.

The examiner has objected to Claims 12 and 15 as being dependent upon a rejected base claim, but indicates that these claims would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. As indicated above, however, their respective base claims should now be allowable.

CONCLUSION

For the foregoing reasons, it is respectfully submitted that this application is now in condition for allowance and early notice of the same is earnestly requested.

Should the examiner have any questions or further concerns regarding this application, applicant would ask that the examiner contact Applicant's attorney, Marc E. Brown, at (310) 788-1569 to schedule an interview before issuing the next office action.

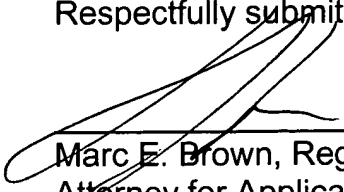
To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 501946,

¹ To be sure, no new matter has been added. The embodiment of the zero-crossing detector circuit 604 shown in Fig. 6 includes a capacitor 606 isolated from ground across the input to the comparator. This causes the phase shift to be substantially independent of frequency.

please credit any excess fees to such deposit account and please reference attorney docket number 64693-021.

Respectfully submitted,

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